PSG/AID-321/68
26 September 1968

MEMORANDUM FOR THE RECORD

SUBJECT: Automatic Stereo Comparator

1. On 25 September I met with [redacted], TSSG, and [redacted] 25X1
25X1 [redacted] to discuss the stereo comparator under development by that company.

2. Among the subjects discussed was the teletype usage between
25X1 [redacted] 516 and UNIVAC 494. The teletype in this system will be used for parametric input into the [redacted] 516 computer and then 25X1
will be switched on-line to the UNIVAC 494. It will be the operator's responsibility to insure that this teletype is on-line to the 494 when data is to be sent to the remote station from the central processor. This does not seem to be a major problem.

3. Also discussed was the fact that the DDP 516 must be programmed for each camera system for which it is to be used. The programs are camera system dependent. [redacted] is presently programming 25X1
the instrument for the KH-4 system [redacted] A 25X1
FORTRAN compiler is available for this purpose. This problem has been ignored to date.

4. A major drawback to the present hardware configuration is that there is no device which can be conveniently used to load programs into the 516. The programs will be punched on paper tape and
25X1 will be quite lengthy. [redacted] is recommending the financing of a high-speed paper tape reader/punch for the system. This appears to be desirable.

5. Because I felt it would aid the [redacted] personnel in their design 25X1
of the machine, I briefed them on the manner in which we will use the device. This description is as follows:

a. The 494 will accept the coordinates of conjugate imagery on-line and construct a drum-based file of this information.

b. Upon termination of operations on a frame, the Real-Time Mensuration Program will initiate a load request for a stereo program.

c. The stereo program will operate at the batch level of the 494 using the drum-based file as input and will send answers out to the remote device.

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The system will not be on-line in the manner of the present system but will have a response time on the order of five minutes. This appears to be acceptable to PHD.

6. Summarizing our work load and anticipated problems in regard to this project, it appears that the work load is minimal (under 80 man-hours) to link this device through the Real Time Mensuration Program and accept data to be stored on drum. Most of our work will be spent in the development of stereo programs. One such program, [redacted] 25X1
25X1 [redacted] is presently under development under another requirement. We have already spent 1400 man-hours on this project and anticipate an additional 400 man-hours to design the interface so that it may be used in the manner described above. AMB's present tasking is to concern itself only with the programming of the central processor in this application. No consideration has been given thus far to programming the DDP 516.

[redacted] 25X1

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PSG/NPIC

Distribution:
25X1 Orig - NPIC/TSSG (Attn: [redacted]
1 - NPIC/PSG/AID
2 - NPIC/PSG/AID/AMB